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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, TU X

ART UNIT

PAPER NUMBER

2684

DATE MAILED: 09/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/752,096

Applicant(s)

THORSON ET AL.

Examiner

Tu X Nguyen

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 53-72 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 53-72 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 21-52 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-20 and 53-72, drawn to a wireless communication system, classified in class 455, subclass 560.
 - II. Claims 21-52, drawn to a base station transceiver module, classified in class 455, subclass 561.
2. The inventions are distinct, each from the other because of the following reasons: Invention I and II are related as combination & subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by it self or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because has a separate utility such as base station transceiver modules interface to be used in a wireless communication system as disclose in claims 1 and 53. The subcombination has separate utility such as RF modules be used to perform signal processing rather than a particular base station as disclosed in claim 21.

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Forrest on July 16, 2003 a provisional election was made with traverse to prosecute the invention of group I, claims 1-20 and 53-72. Affirmation of this election must be made by applicant in replying to this Office action. Claims 21-52 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 6-20, 53-54 and 58-72, are rejected under 35 U.S.C. 103(a) as being unpatentable over Dajer et al. (US Patent 6,587,448) and further in view of Robinson et al. (US Patent 5,544,222).

Regarding claims 1, 6, 53 and 58, Dajer et al. disclose a wireless communication system, comprising:

a plurality of base station transceiver modules (306-M), each base station transceiver module configurable to operate as a standalone single-sector base station transceiver (see col.2 lines 1-24).

A backhaul interface module in communication with the base station transceiver modules and configured to distribute received data to the plurality of base station transceiver modules (see col.1 lines 44-50).

Dajer et al. disclose control and traffic Buses 104. However, fail to disclose base station transceiver modules coupled to one another via a high speed serial link.

Robinson et al. disclose a high speed serial link (see col.42 lines 12-18). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Dajer et al. with the above teaching of Robinson et al. in order to provide high speed connections between the various transceiver modules.

Regarding claims 2 and 54, the modified Dajer et al. disclose controlled impedance media (see Robinson, col.42 lines 12-19).

Regarding claims 7 and 59, the modified Dajer et al. disclose a system interface unit operatively coupled to at least one base station transceiver module via the HSSL (see Dajer, col.1 lines 44-50 and Robinson col.42 lines 12-15).

Regarding claims 12-13, 19-20 and 71-72, the modified Dajer et al. disclose the base station transceiver modules are arranged in CDMA three-sector, six-carrier configuration (see Dajer, col.7 lines 20-35).

Regarding claims 8-11, 14-20 and 60-70, the modified Dajer et al. fail to disclose specifically base station transceiver modules are arranged in two-sector, one-carrier configuration; one-sector, nine-carrier configuration; one-sector, twelve-carrier configuration. However, the modified Dajer et al. mention any desired numbers of sectors and carrier is applicable (see col.11 lines 50-60). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify

the system of the modified Dajer et al. to provide base station modules configuration are arranged in any combinations between sector and carrier.

5. Claims 3-4 and 55-56, are rejected under 35 U.S.C. 103(a) as being unpatentable over Dajer et al., in view of Robinson et al. and further in view of Yala-Mella et al. (US Patent 6,526,290).

Regarding claims 3 and 55, Dajer et al. fail to disclose an optical interface.

Yala-Mella et al. disclose an optical interface (see col.1 lines 15-40). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Dajer with the above teaching of Yal-Mella in order to provide high speed transmission.

Regarding claims 4 and 56, Dajer et al. fail to disclose a T1/E1 interface.

Yala-Mella et al. disclose a T1/E1 interface (see col.6 lines 4-15). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Dajer et al. and Robinson with the above teaching of Yal-Mella in order to provide high capacity data transmission between base stations.

6. Claims 5 and 57, are rejected under 35 U.S.C. 103(a) as being unpatentable over Dajer et al. and further in view of Siu et al. (US Patent 6,522,641).

Regarding claims 5 and 57, Dajer et al. fail to disclose a 10/100BaseTX interface.

Siu et al. disclose 10/100BaseTX interface (see col.3 lines 15-20 and col.5 lines 46-50). Therefore, It would have been obvious to one of ordinary skill in the art at the

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time the invention was made to modify the system of the modified Dajer et al. with the above teaching of Siu in order to provide Ethernet IP connections.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is (703) 305-3427. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, MAUNG NAY A, can be reached at (703) 308-7749.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 2600 Customer Service Office at (703) 306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

TN
August 13, 2003

